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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,391	04/03/2001	James A. Pope	OKL00001	1613

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EXAMINER	
SING, SIMON P	

ART UNIT	PAPER NUMBER
2645	9

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/825,391	POPE ET AL.	
	Examiner	Art Unit	
	Simon Sing	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson US 5,903,370 in view of Schesser et al. 6,414,405.

1.1 Regarding claims 1 and 7, Johnson discloses a system for an optical domain in figure 9. In figure 9, there is a first region having Nodes A and F and a second region having Nodes G and E. A first cable 47A connects Node A (first site) to Node B (third site), and a second cable 47A connects Node F (second site) to Node E (fourth site). Johnson also teaches a spare cable 48A for connecting Node A to Node B, and another spare cable 48A for connecting Node F to Node E. Each spare cable 48A has the capacity (bandwidth) of working cable 47A (figure 9). Johnson fails to teach a cable with four ends and a capacity (bandwidth) of 2 time (2X) of a working cable.

However, Schesser discloses an optical cable 15 in figure 2. Cable 15 has four ends connecting to sites A and B in region 1 and sites C and D in region 2, to provide data traffic between theses sites (column 1, lines 21-28). Schesser teaches that cable 15 may replace two traditional dual cables system (column 4, lines 26-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Johnson's reference with the teaching of Schesser, so that a single cable (third cable) with four ends and spare capacity of 2X would have replaced the two spare cables connecting Node A to Node B, and Node F to Node E, because such a modification would have reduced cable installation cost by laying just one cable instead of two.

1.2 Regarding claim 2, as discussed in claim 1, the third cable of the modified system, the third cable connects Node A (first site) to Node B (second sit), and Node F (third site) to Node E (fourth site).

1.3 Regarding claim 3, as discussed in claim 1, the third cable comprises to spare cables of 48A.

1.4 Regarding claim 4, Johnson teaches that each Node (site) comprises an optical switch (figure 9).

1.5 Regarding claim 5, Johnson teaches that data traffic is classified in to higher priority and lower priority (column 6, lines 61-67).

1.6 Regarding claim 6, Johnson teaches that data traffic is classified in to higher priority and lower priority (column 6, lines 61-67), and when one of the cables is broken, lower priority data is dropped in favor of the higher priority data (column9, lines 24-35).

1.7 Regarding claim 8, as discussed in claim 1, the first cable and the second cable each has two ends, and the third cable of the modified system has four ends.

1.8 Regarding claims 9 and 11, Johnson discloses a system for an optical domain in figure 9. In figure 9, there is a first region having Nodes A and F and a second region having Nodes G and E and each Node (site) comprises an optical switch having at least three data ports for connecting cable 47A and 48A. A connecting cable 47A connects a third data port of Node A (first site) to a third data port of Node F (second site), and another connecting cable 47A connects a third data port of Node B (third site) to a third data port of Node E (fourth site). A first cable 47A connects a first data port of Node A (first site) to a first data port of Node B (third site), and a second cable 47A connects a first data port of Node F (second site) to a first data port Node E (fourth site). Johnson also teaches a spare cable 48A for connecting a second data port of Node A (first site) to a second data port of Node B (third site), and a another spare cable 48A for connecting a second data port of Node F (second site) to a second data port Node E (fourth site). Johnson further teaches that each spare cable 48A has the capacity (bandwidth) of working cable 47A (figure 9) for carrying different grade of data traffic

(column 6, lines 61-67). Johnson fails to teach a cable with four ends and a capacity (bandwidth) of 2 time (2X) of a working cable.

However, Schesser discloses an optical cable 15 in figure 2. Cable 15 has four ends connecting to sites A and B in region 1 and sites C and D in region 2, to provide data traffic between theses sites (column 1, lines 21-28). Schesser teaches that cable 15 may replace two traditional dual cables system (column 4, lines 26-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Johnson's reference with the teaching of Schesser, so that a single cable (third cable) with four ends and spare capacity of 2X would have replaced the two spare cables connecting Node A to Node B, and Node F to Node E, because such a modification would have reduced cable installation cost by laying just one cable instead of two.

1.9 Regarding claim 10, Johnson teaches that data traffic is classified in to higher priority and lower priority (column 6, lines 61-67), and when one of the cables is broken, lower priority data is dropped in favor of the higher priority data (column9, lines 24-35).

1.10 Regarding claim 12, Johnson discloses a system for an optical domain in figure 9. In figure 9, there is a first region having Nodes A and F and a second region having Nodes G and E and each Node (site) comprises an optical switch having at least three data ports for connecting cable 47A and 48A. A connecting cable 47A connects a third data port of Node A (first site) to a third data port of Node F (second site), and another

connecting cable 47A connects a third data port of Node B (third site) to a third data port of Node E (fourth site). A first cable 47A connects a first data port of Node A (first site) to a first data port of Node B (third site), and a second cable 47A connects a first data port of Node F (second site) to a first data port Node E (fourth site). Johnson also teaches a spare cable 48A for connecting a second data port of Node A (first site) to a second data port of Node B (third site), and a another spare cable 48A for connecting a second data port of Node F (second site) to a second data port Node E (fourth site). Johnson further teaches that each spare cable 48A has the capacity (bandwidth) of working cable 47A (figure 9) for carrying different grade of data traffic (column 6, lines 61-67) such as higher priority and lower priority (column 6, lines 61-67), and when one of the cables is broken, lower priority data is dropped in favor of the higher priority data (column9, lines 24-35). Johnson fails to teach a cable with four ends and a capacity (bandwidth) of 2 time (2X) of a working cable.

However, Schesser discloses an optical cable 15 in figure 2. Cable 15 has four ends connecting to sites A and B in region 1 and sites C and D in region 2, to provide data traffic between theses sites (column 1, lines 21-28). Schesser teaches that cable 15 may replace two traditional dual cables system (column 4, lines 26-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Johnson's reference with the teaching of Schesser, so that a single cable (third cable) with four ends and spare capacity of 2X would have replaced the two spare cables connecting Node A to Node B, and Node F to

Node E, because such a modification would have reduced cable installation cost by laying just one cable instead of two.

1.11 Regarding claim 13, Johnson discloses a system for an optical domain in figure 9. In figure 9, there is a first region having Nodes A and F and a second region having Nodes G and E and each Node (site) comprises an optical switch having at least three data ports for connecting cable 47A and 48A. A connecting cable 47A connects a third data port of Node A (first site) to a third data port of Node F (second site), and another connecting cable 47A connects a third data port of Node B (third site) to a third data port of Node E (fourth site). A first cable 47A connects a first data port of Node A (first site) to a first data port of Node B (third site), and a second cable 47A connects a first data port of Node F (second site) to a first data port Node E (fourth site). Johnson also teaches a spare cable 48A for connecting a second data port of Node A (first site) to a second data port of Node B (third site), and a another spare cable 48A for connecting a second data port of Node F (second site) to a second data port Node E (fourth site). Johnson further teaches that each spare cable 48A has the capacity (bandwidth) of working cable 47A (figure 9) for carrying different grade of data traffic (column 6, lines 61-67) such as higher priority and lower priority (column 6, lines 61-67) for each Node (e.g. multiplexing data traffic from Node B to domain 2 in figure 9), and when one of the cables is broken, lower priority data is dropped in favor of the higher priority data (column9, lines 24-35). Johnson fails to teach a cable with four ends and a capacity (bandwidth) of 2 time (2X) of a working cable.

However, Schesser discloses an optical cable 15 in figure 2. Cable 15 has four ends connecting to sites A and B in region 1 and sites C and D in region 2, to provide data traffic between theses sites (column 1, lines 21-28). Schesser teaches that cable 15 may replace two traditional dual cables system (column 4, lines 26-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Johnson's reference with the teaching of Schesser, so that a single cable (third cable) with four ends and spare capacity of 2X would have replaced the two spare cables connecting Node A to Node B, and Node F to Node E, because such a modification would have reduced cable installation cost by laying just one cable instead of two.

1.12 Regarding claim 14-19, the Johnson's reference, modified by Schesser, teaches providing backups for optical cables. Schesser further teaches that optical cables are used as undersea cables (column 1, lines 12-28; column 4, lines 26-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Johnson's reference, which was modified by Schesser, with the further teaching of Schesser, so that the first, the second and the third cables would have been undersea cable, because such a modification would have enabled the modified system to be installed in any environmental condition.

Response to Arguments

2. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

Allan Hoosain
ALLAN HOOSAIN
PRIMARY EXAMINER for
Fan Tsang

S.S.

08/20/2004